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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10 082,174

02/26/2002

Stanford W. Crane JR.

040879-5092

2403

9629

7590

02/28/2003

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EXAMINER

TRINH, HOA B

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/082,174

Applicant(s)

CRANE ET AL

Examiner

Vikki H Trinh

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 12-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-29 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of.
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and 121.

Information

Information Disclosure Statement(s)

☐ Information Disclosure Statement(s) (PTO-1449, Paper No. 1)

☐ Other

Examiner's Signature

Signature of Applicant

Office Action Summary

Form 100 (Rev. 10-2001)

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 12-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.
2. Applicant's election with traverse of group I, claims 1-11, in Paper No. 4 is acknowledged. The traversal is on the ground(s) that "'materially different process' is not excluded from the coverage under the claims of group II and that the examination of the pending claims would not be an excessive burden on the examiner". This is not found persuasive because as mentioned in the previous Office Action group I distinguishes from group II, since group I can be made with materially different process to produce a packaging device having vertical lead sections. On the other hand, the present process claims can be used to make another materially different product such as a packaging device with horizontal lead sections.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: "a external" should be "an external". Appropriate correction is required.

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### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language, or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a)

5. Claims 1-<sup>11</sup> are rejected under 35 U.S.C. 102(e) as being anticipated by Crane, Jr. et al. (6,339,191).

Crane, Jr. et al. (6,339,191) discloses a semiconductor chip carrier/package having the following:

As to claim 1, a housing defining a cavity for holding a die 101 and including a plurality of insulative sidewalls 102b, and an end plate 102a joined to the side walls; and a plurality of conductive leads 103, which include an internal lead section extending into the cavity from the top surface of the interior wall and an external lead section extending externally from at least one bottom surface of the side wall. See col. 1, lines 39-42, 61-62, col 9, lines 1-5, col 13, lines 60-65, and figures 2-4, 62.

As to claim 2, the side walls and end plate are a one-piece unit. See figures 7b, 3.

As to claim 3, the insulative side wall is made of liquid crystal polymer. See col 9, lines 1-5.

As to claim 4, side walls include recess. See figure 5.

As to claim 5, the end plate 102a is adapted to support one die. See figure 3.

As to claim 6, the end plate includes a conductive material. See col 21, lines 50-65.

As to claim 7, the cover plate covers at least a portion of the cavity. See col. 1, lines 39-42, 61-62, col 9, lines 1-5, col 13, lines 60-65.

As to claim 9, an adhesive is applied to the trench for securing the plate to the housing.  
See col. 1, lines 39-42, 61-62, col 9, lines 1-5, col 13, lines 60- 65.

As to claim 10, Adhesive is applied to the side walls for securing the cover plate to the housing. col. 1, lines 39-42, 61-62, col 9, lines 1-5, col 13, lines 60- 65.

As to claim 11, the external lead sections extend at least two different lengths from the bottom surface of each side wall. See figure 3.

### Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Phy et al. (4,839,717) discloses a semiconductor packaging having a die, an end plate, a cover plate, leads and other elements. See entire document.

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (703) 308-8238. The Examiner can normally be reached Mon-Tuesday, Thurs-Friday, 7:30 AM - 6:00 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (703) 308-4918. General inquiries relating to the status of this application should be directed to the Group

receptionist at (703) 308-0858. The fax number is (703) 308-2708.

Vikki Trinh,  
Patent Examiner  
AU 2814